endow parenthood as to remove the positive correlation between infertility and success. Only thus can our civilization be saved.

If we are looking at the prospects of the present epoch some such scheme is apparently the only hope, and to the present reviewer it appears a small one, when we consider that nearly all the members of the community are guided by some enthusiasm or other, all of them pointing in quite different directions, and that these have got to be replaced fairly universally by a single one in a new direction. Can we expect to be allowed more than a century in which to accomplish this and avoid the catastrophe? But it is also interesting to take a more generous time-scale and ask what humanity will be like a million years hence. If we take a pessimistic view we shall read the answer from the social insects, and it will not be much to our liking. The civilizations developed independently by the termites and by several kinds of hymenoptera all show that in running a community sex will not work; that the division of labour leads to a specialization of sex as well. We can only say that we are probably protected from the extreme specialization of the queen ant by the difference between mammalian and arthropoid physiology.

But there is an alternative view of the future, which is more encouraging. Fisher cites some statistics from America as illustrating that fertility is dependent on the length of time the population has been civilized, so that Jews are more fertile than Mediterraneans, and these than Nordics. The inference is that on first becoming civilized the tendency to infertility is strong, but that selection comes into play favouring the individuals with a positive taste for having children. This selection has lasted longer among the Jews, so that at present they are better able to endure the test of civilization than are the Nordics. The social animal man has swindled nature, because another man's child is as useful as one's own, and the bait of sexual desire has been overcome in a variety of ways without immediate penalty. But as sexual desire has failed, nature is providing a new bait in the wish for offspring, whether directly or by means of such rationalizations as the religious prohibition of fœticide. From the general tenor of the present book we may judge that this will be a " runaway " process, and will produce a large change in comparatively few generations; from the example of the Jews we may estimate that there has been a very appreciable effect in fifty generations. May we not anticipate that in another hundred generations natural selection will have accomplished the work of the Eugenics Society?

In the war of evolution there have been many shrewd blows struck on both sides, but chiefly as skirmishes, by the citation of examples where this or that explanation can or cannot work. In the history of this war the present book ranks, not as a skirmish, but as a whole campaign. On whichever side of the controversy the reader's predilections lie, he must accept it as a contribution to the subject of quite fundamental importance.

C. G. DARWIN.

THE CRIMINAL

Glueck, Professor Sheldon and Eleanor T. 500 *Criminal Careers*. New York, 1930. Knopf. Pp. 365. Price 21s.

IN this interesting and important volume Professor and Mrs. Glueck present a statistical study of the after-histories of 510 men who were discharged from the Massachusetts Reformatory during the years 1911-22. Eighty per cent. were not reformed five to fifteen years later, and Dr. Richard C. Cabot in a foreword states that, although this reformatory probably stands high among institutions of its kind, the results show that the methods carried out in this and most so-called reformatories of America have not accomplished their object. And the authors challenge the claims of annual reports and superficial researches which estimate the successes at 80 per cent. to 60 per cent.

The careful manner in which the after-histories of the ex-inmates were followed up is sufficiently described. The work took

nearly three years to carry out, and cost eleven thousand dollars. Of the various methods of approach, two expert field agents interviewed 372 of the men and their relatives, neighbours, and others whenever possible.

The ages of the men when committed to the reformatory were between under fifteen and thirty-six years. Four hundred and fifty-three of the offences were classified as major, thirty-eight minor, and fifteen as cases of juvenile delinquency. Over four-fifths of the men were known to have been arrested for offences other than, and prior to, that for which they were sentenced to the reformatory. Indeterminate sentences were imposed on 435 of the cases, and the fixed sentences ranged from three months to six years. The period of detention appears generally to have been brief, for of 327 men who received a five-year indeterminate sentence 47 per cent. were released on parole after thirteen months' detention.

These figures suggest possible reasons for the non-success of the Massachusetts Reformatory, for it is contrary to the experience of prison administrators in this country to obtain good results when lads mix with older men more experienced in vice and crime than themselves. The older men proselytize the younger, and the latter emulate their elders.

The mixing of first offenders with 'repeaters' suggests a lack of the classification which is recognized to be so important; and at the International Penitentiary Congress in 1925 it was unanimously agreed that the prevention of the contamination of the less criminal prisoners by those more experienced in crime was one of the first essentials in prison treatment.

In this country the Borstal institutions segregate the youthful offender from the adult. Young persons between the ages of sixteen and twenty-one who are not sent to a Borstal institution are separated from the adults, and a special class of young men between twenty-one and twenty-five years of age are also separated from the older men. Moreover, first offenders are collected in certain prisons, and the classification of English prisons themselves is now passing beyond the experimental stage.

The physical condition of the majority of the 510 cases is returned as good or fair, and their bodily health does not seem to have been responsible to any large extent for their subsequent failure.

As regards their mental condition: One-third of the men were considered to be of normal mentality, about half were classified as dull or of borderline mentality, and 21 per cent. as feebleminded. Only 3 per cent. were found to have definite psychoses, 18 per cent. were psychopaths, and in 70 per cent. there was no known mental disease. The remaining 9 per cent. were sex perverts, congenital syphilitics, and those suffering from alcoholic and drug addiction. Excluding these peculiarities of emotion, attitude and conduct were noted in 265 cases.

At the time the prisoners were in the reformatory Dr. Guy Fernald had sole charge of the general medical and surgical work of the whole institution, and the psychiatric work was often several months behind in consequence. The examination consisted of specialized mental efficiency tests, an ethical discrimination test, and a personality analysis. The psychiatrist's findings were compared with any other psychometric examination which had been made, and a judgment made by a teacher or some other reliable observer was sometimes used in reaching a final decision.

The detention in a penal institution of so many feeble-minded persons was probably another reason for the high proportion of failures. Perhaps few facts in later years have emerged so clearly from prison administration in this country as the great amount of crime that is cut off at the source by segregating delinquent defectives. It is, I think, generally accepted that their detention in any penal institution is unlikely to render them socially acceptable, and that they require continued segregation in non-penal institutions, for their own benefit and for the protection of the public. I have shown elsewhere the incorrigibility of delinquent defec-

tives* : an analysis of 674 of various ages, who served sentences of imprisonment in this country before the Mental Deficiency Act of 1913, enabled their rational treatment to be effected in non-penal institutions, and showed that of this number 459, or 68 per cent., had previous convictions, and the total number of their convictions was 3,296.

Relatively little information emerged from the author's inquiry concerning the incidence of mental disease or defect in the families of the subjects. In only eighty-nine families was one or other known to have been present. The largest percentage of cases recorded mental disease rather than defect. But the authors point out that their information was no doubt incomplete, and that reliable data on this matter are particularly elusive. Over 50 per cent. of the families of the ex-inmates of this reformatory had committed various offences prior to the imprisonment of the cases studied. In addition 30 per cent. of the families were delinquent although there was no official record of the fact. In 75 per cent. of the 412 families regarding whom information was obtained the criminal conduct consisted of offences more serious than mere drunkenness. And although comparable statistics as to the general Massachusetts population were not obtainable, the authors consider it reasonable to conclude that the percentage of criminals among the general population is not so high.

In a particularly interesting chapter Professor and Mrs. Glueck present prognostic tables which they suggest may furnish a scientific guide to judges when sentencing individual cases, and to parole boards when deciding whether a prisoner is likely to do well on parole, and the type of parole supervision best adapted to particular cases. To form the tables the authors analyzed and interpreted the known pre-reformatory, reformatory, and parole factors in the lives of those offenders who form the subject of this book. They state that much more research and refinement of method are needed, but they consider their device a step towards a scientific management of the problem of crime by courts and administrative agencies. It will be interesting to hear whether these prognostic tables have been put to practical use, and the result.

The authors are to be congratulated on their frank and sober exposition. Dr. Cabot, in his foreword, says that psychologists, physicians, social workers, and criminologists who readily condemn the present methods of treating criminals have themselves usually nothing to suggest but more accurate diagnosis. He adds that character diagnosis is essential, and we lack it. But it is not treatment, and psychiatry and psychology have given us few if any clues of proved usefulness in the treatment of crime. Professor and Mrs. Glueck consider Dr. Cabot's position as unshakable, and admit that psychiatry and psychology, as well as social case-work, still have much to learn, and perhaps more to unlearn, as regards diagnosis of the individual, intelligent classification based thereon, and therapy. But they point out that the psychiatrist, psychologist, and social workers are by training peculiarly fitted to experiment with methods of personality study and reorientation. And if they do not, who will?

The reviewer believes that the speculations of certain psychologists, and the tendency to use a theory based upon the investigation of abnormal cases as an interpretation of normal conduct, have caused many persons to adopt a hostile attitude towards the scientific approach to criminal problems. There can be little doubt also that administrators will select their own methods of dealing with crime and criminals until scientists have made further advances, proved their value, and become better agreed upon fundamentals. But the causes of crime are complex and we cannot afford to ignore the help to be derived from psychiatry, psychology, and sociology; or indeed from any of those sciences which throw light upon conduct, eugenics, biology, anthropology, and others. Briefly, the psychiatrist, by his special training in mental disease, places his knowledge at the disposal of the criminal court,

* East, W. Norwood. *Forensic Psychiatry.* London, 1927. J. & A. Churchill.

and enables the responsibility of accused persons to be assessed. He, too, advises the administrator upon the cases which should be transferred from a penal institution to a mental hospital. The psychologist, as the result of his study of mental processes, the instincts and the emotions, and his experimental measurements of mental and physical efficiency and fatigue has contributed facts of permanent value to the student of crime. And the social worker by correlating the causative environmental factors of delinquency suggests methods for their removal. But it seems probable that the services of scientists may be most usefully directed at present to the prevention of crime, rather than towards the treatment of the criminal.

W. NORWOOD EAST.

HUMAN CONSTITUTION

Draper, George, M.D. *Disease and the Man.* London, 1930. Kegan Paul. Pp. xix+270. Price 12s. 6d.

IN the constitution clinic of the Presbyterian Hospital, New York City, there has been developed a system of clinical examination which must be of profound interest to the student of heredity. It is postulated that personality consists of four panels—morphological, physiological, immunological, psychological—and that these as well as disease potentiality are all co-ordinates. It has been found that by gathering information concerning the subject matter within each panel of a given individual a fairly complete picture of the whole person could be obtained, and, moreover, that knowledge of one panel enabled one to predicate the characters contained within one or more of the other panels. As this system of examination progressed it was found that patients suffering from the same disease commonly displayed close similarity amongst the characters in one or more of the panels.

This book, which is a development of the author's *Human Constitution,* published in 1924, presents his conception of the relationship of human constitution to disease. There is a chapter devoted to human genetics which presents a number of quite interesting cases of inherited defect or disharmony. This is followed by a chapter upon morphology in which the relationship between certain diseases and certain physical types is illustrated. Simple yet fascinating diagrams of the typical faces of acromegaly and pernicious anæmia, of nephritis, tuberculosis, gastric ulcer, gall bladder disease, are shown. In the clinic plaster casts are made of the palate and teeth, and evidence is presented to show the characteristic differences between the strong, thick-set jaw of the gall-bladder type, and the slim, gracile jaw of the ulcer type.

The book is really a forecast of the coming science of "human geometry" which will make it possible to discover all the essential details of a man's constitution when once a few of them are known.

While the medical man will be most interested in this book's second part, which deals with localized constitutional anomalies and inadequacies, the human biologist and the layman will be fascinated by the first part, the general concept of man as a whole organism.

F. A. E. CREW.

Pende, Nicola, M.D. *Constitutional Inadequacies* (translated by Sante Naccarati). Philadelphia. Lea and Febiger. Pp. xv +270. Unpriced.

Fowler, Sir James K., K.C.V.O., M.D., etc. *The Sthenics.* London, 1930. Macmillan. Pp. 81. Price 3s. 6d.

THE development of specialization in modern medicine has met with much adverse criticism; and it is true that the practitioner of the last century had knowledge and perspective which were invaluable in his profession, and formed the basis for the shrewd clinical judgment characteristic of men of the old school.

It cannot be doubted, however, that much